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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,169	07/09/2003	Mitsuo Kawasaki	9281-4597	1104
7590	03/27/2006			
Anthony P. Curtis, Ph.D. BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			EXAMINER	LEADER, WILLIAM T
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/616,169	KAWASAKI ET AL.	
	Examiner	Art Unit	
	William T. Leader	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 January 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 25-37 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 25-37 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

1. Receipt of the papers filed on January 10, 2006, is acknowledged. Claims 25-37 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Applicant's amendments are deemed to have overcome the rejection under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

4. Claims 25-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa et al (6,132,892) in view of either Anderson et al (4,661,216) or Omata (5,011,581) and further in view of Lee et al (6,346,181) and the article "Plating with Pulsed and Period-Reverse Current" by Sun et al and additionally in view of the Lowenheim text *Electroplating*.
5. Yoshikawa et al, Anderson et al, Omata, Lee et al and the Sun article are applied as in the previous office action. Applicant has amended independent claim 25 to recite that the plating solution has a Fe ion concentration in the range of 1.0 to 2.0 g/l. This newly added limitation is not considered to distinguish the claims from the prior art of record. The Lowenheim text shows that the influence of different variables in alloy plating is known. In particular, Lowenheim teaches that the concentration of the two metals in the bath composition influences the

composition of the deposit. Thus, one of ordinary skill in the art would be lead to choose the appropriate bath composition to deposit the desired alloy. As shown by Lowenheim, the concentration of the metals in the bath is a result-effective variable. Choice of a particular concentration is a matter of routine optimization within the skill of the ordinary practitioner in the art.

Response to Arguments

6. Applicant's Remarks have been carefully considered but are not deemed to be persuasive. Applicant argues that since Anderson discloses ranges for Fe and Co and Ni which do not overlap the ranges of claim 25, that the teachings of Anderson would not lead a person skilled in the art to use of plating solution taught by Anderson to achieve the result taught by Yoshikawa. The rejection is not based on the use of the exact solution of Anderson. Rather, Anderson is relied on to show that electroplating is a recognized method for depositing these alloys. As shown by Lowenheim, discussed above, one of ordinary skill in the art would recognize that the bath composition is changed to product the desired alloy composition.

7. Applicant argues that an apparatus teaching cannot be used to support a rejection of a method claim. This argument is not persuasive. A reference is taken for what it teaches in its entirety. The teaching of Omata is relevant to the claimed method for the reasons of record.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Leader whose telephone number is 571-272-1245. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WL
William Leader
March 16, 2006

ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700